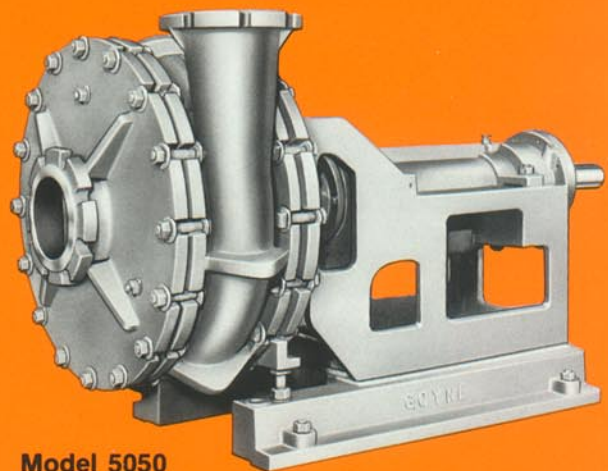
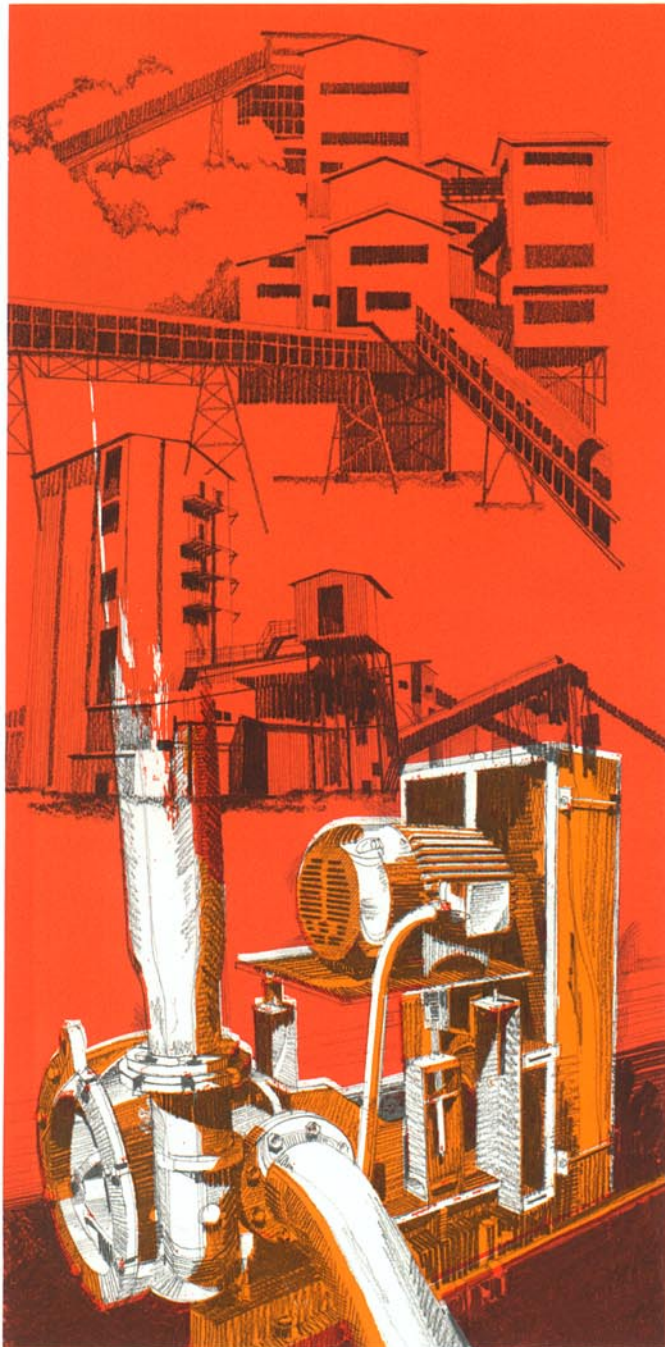


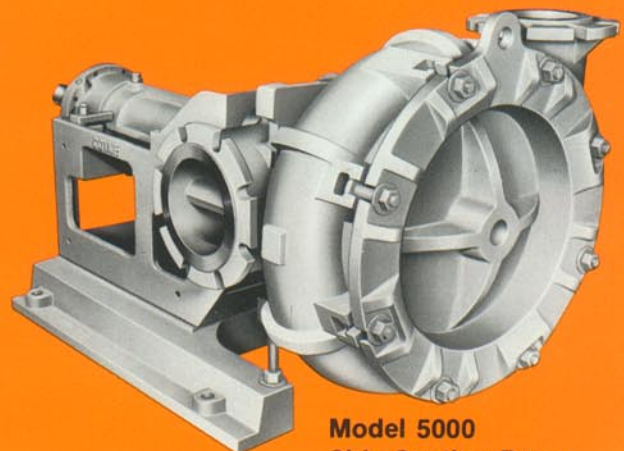


GOULDS PUMPS

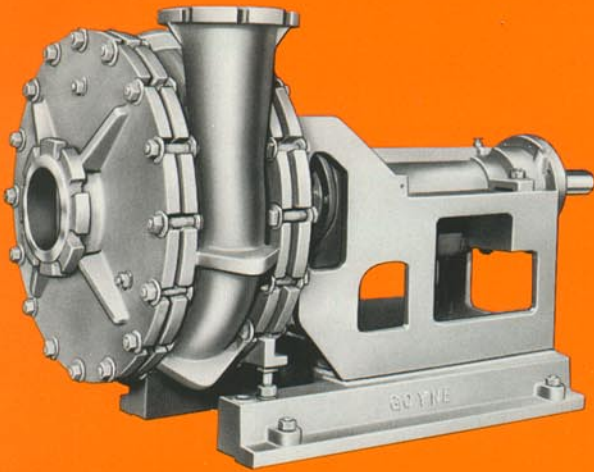
Gooulds Models 5000 & 5050 Solids Handling Pumps



**Model 5050
End Suction Pump**



**Model 5000
Side Suction Pump**

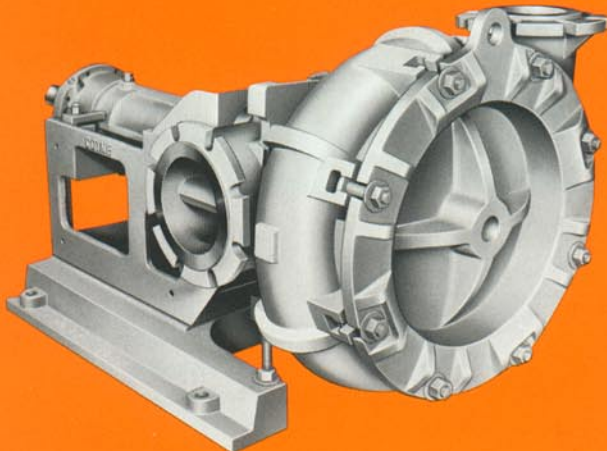


Goulds solids handling pumps have gained unparalleled acceptance in industry. Thousands of abrasive/slurry installations attest to the remarkable performance of the Goulds pump line.

Most sizes are available as side suction (Model 5000) or end suction (Model 5050) pumps. The side suction pumps are most frequently used. This unique design offers inherent advantages such as low sealing water requirements and ease of maintenance—pumps can be repaired without disturbing suction and discharge piping.

In addition, Goulds foundry offers unsurpassed metallurgical expertise with a wide range of proprietary abrasive resistant alloys.

And Goulds Pumps backs this superb product line with the latest technology, engineering assistance and ready availability of pumps and parts.



Goulds Models 5000 & 5050

Solids Handling Pumps Designed for Wide Range of Abrasive/Slurry Services

- Capacities to 10,000 GPM (2271 m³/h)
- Heads to 350 feet (107 m) per stage
- Temperatures to 150° F (66° C)
- Pressures to 300 PSIG (2068 kPa)
- Spherical Solids to 4¼" (108 mm)

Design Features

Low sealing water pressure required for Model 5000

Design facilitates ease of maintenance

28 combinations of suction & discharge positions

External impeller adjustment

Available in wide range of corrosive/abrasive resistant alloys

Heavy duty shaft

Low speed design for maximum life under severe conditions

Positive impeller fastening method

Available in 3" to 14" sizes

Services

Coal Prep Plant Services

Mine Slurry

Iron Ore Slurry

Phosphate Mining

Lime Slurry

Ash Slurry Pumps

Heavy Media Separation

Underflows

Filtrates

Disposal Systems

Effluent Sludge

Froth Flotation

Hydrocyclone Application

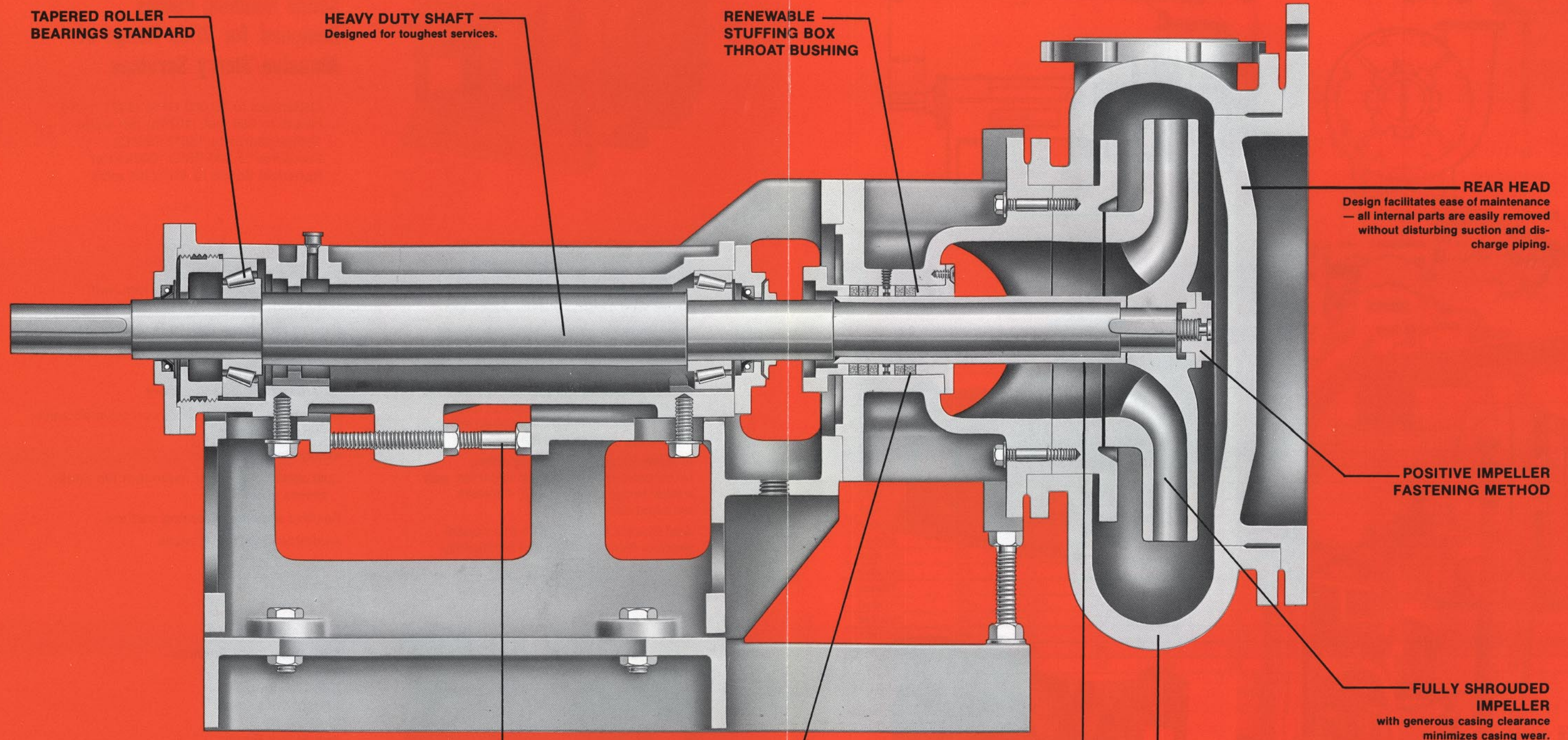
Clarified Water

Jig Feed Pumps

Deister Tables

Goulds Model 5000 Side Suction Solids Handling Pumps

Heavy Duty Design Features for Wide Range of Corrosive/Abrasive Slurry Services



TAPERED ROLLER BEARINGS STANDARD

HEAVY DUTY SHAFT
Designed for toughest services.

RENEWABLE STUFFING BOX THROAT BUSHING

REAR HEAD
Design facilitates ease of maintenance — all internal parts are easily removed without disturbing suction and discharge piping.

POSITIVE IMPELLER FASTENING METHOD

FULLY SHROUDED IMPELLER
with generous casing clearance minimizes casing wear.

MATERIALS

Liquid end parts (impeller, wear ring, casing, suction cover, rear head) are available in a variety of abrasion and corrosion resistant alloys. Goyne Alloy available for excellent abrasion resistance. High chrome iron alloys with controlled carbon content are furnished for maximum resistance to abrasion and corrosion.

EXTERNAL IMPELLER ADJUSTMENT

Permits restoring running clearance after abrasive wear without disassembling pump. Maintains pump efficiency and performance over life of the impeller.

LOW STUFFING BOX PRESSURE

Low sealing water pressure requirements for packing. Unique impeller design subjects stuffing box to suction pressure only. Improves shaft sleeve and packing life — reduces maintenance and downtime.

RENEWABLE SHAFT SLEEVE

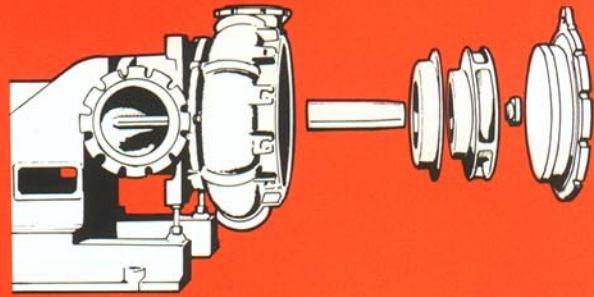
Simplifies maintenance, fully protects shaft from pumpage. Available in various hardened high chrome alloys for maximum abrasion resistance.

CASING

- 28 suction & discharge positions.
- Bonus casing thickness.
- Wide range of corrosion/abrasion resistant alloys available.
- Available in sizes from 3" to 14" discharge.

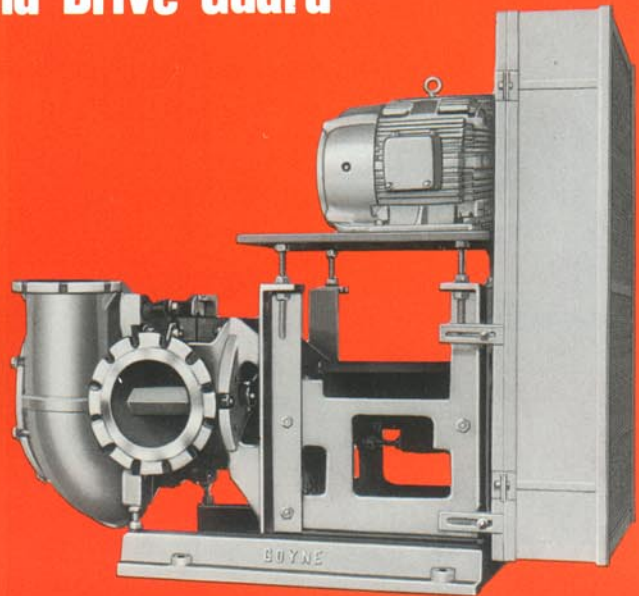
Ease of Maintenance

With Goulds model 5000 Side Suction Pumps, downtime is minimal. Just remove the read head and all internal wearing parts are easily removed—without disturbing suction and discharge piping.



Overhead Motor Mount and Drive Guard

An optional feature of the Goulds horizontal pump line is the overhead motor mount and drive guard. The overhead motor mounts are available in three sizes with the largest capable of using motors up to 250 HP, not exceeding 2500 lbs. in weight. The drive guards are completely enclosed to meet OSHA standards. The top and sides are enclosed with sheet steel and the ends and bottoms are expanded metal.



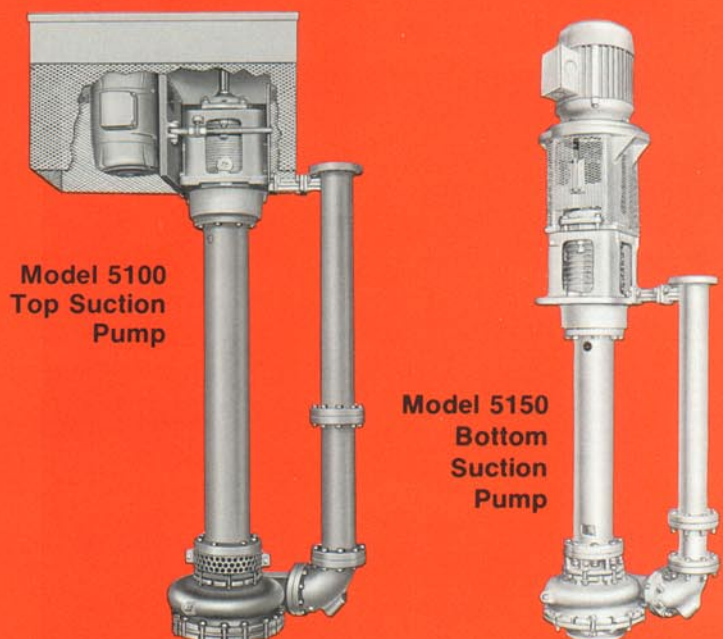
Vertical Versatility

Goulds makes a complete line of vertical solids handling pumps in sizes from 2" to 12" discharge with capacities to 6000 GPM (1363 m³/h) and heads to 175 feet (53 m).

Model 5100 — Top suction pumps for cantilevered settings to 10 feet. V-belt driven or direct drive available.

Model 5150 — Bottom suction pumps can be supplied with tail pipes for long settings to maintain cantilever design.

These pumps are described in Bulletin 727.2.



Parts List and Materials of Construction

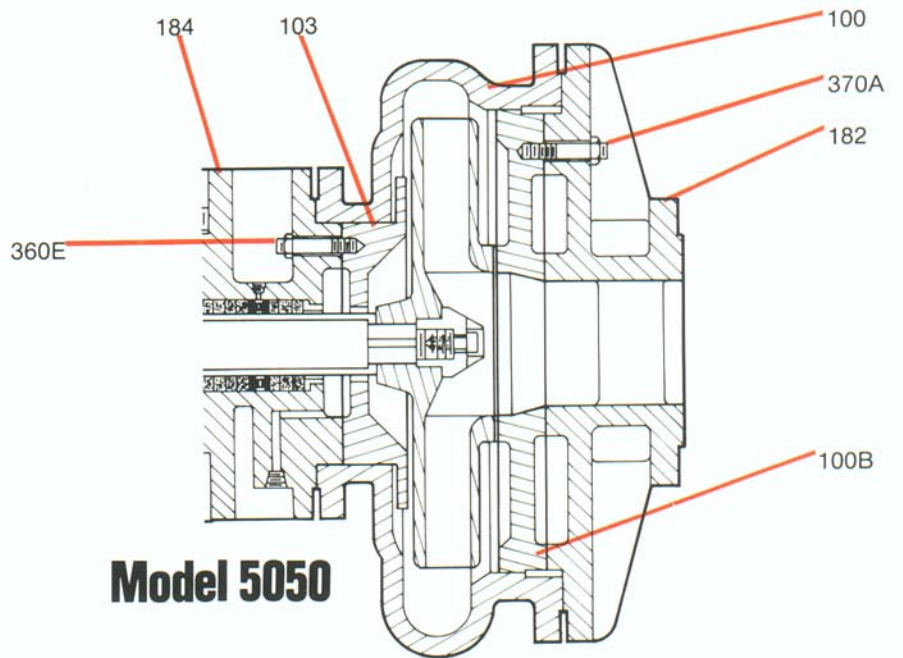
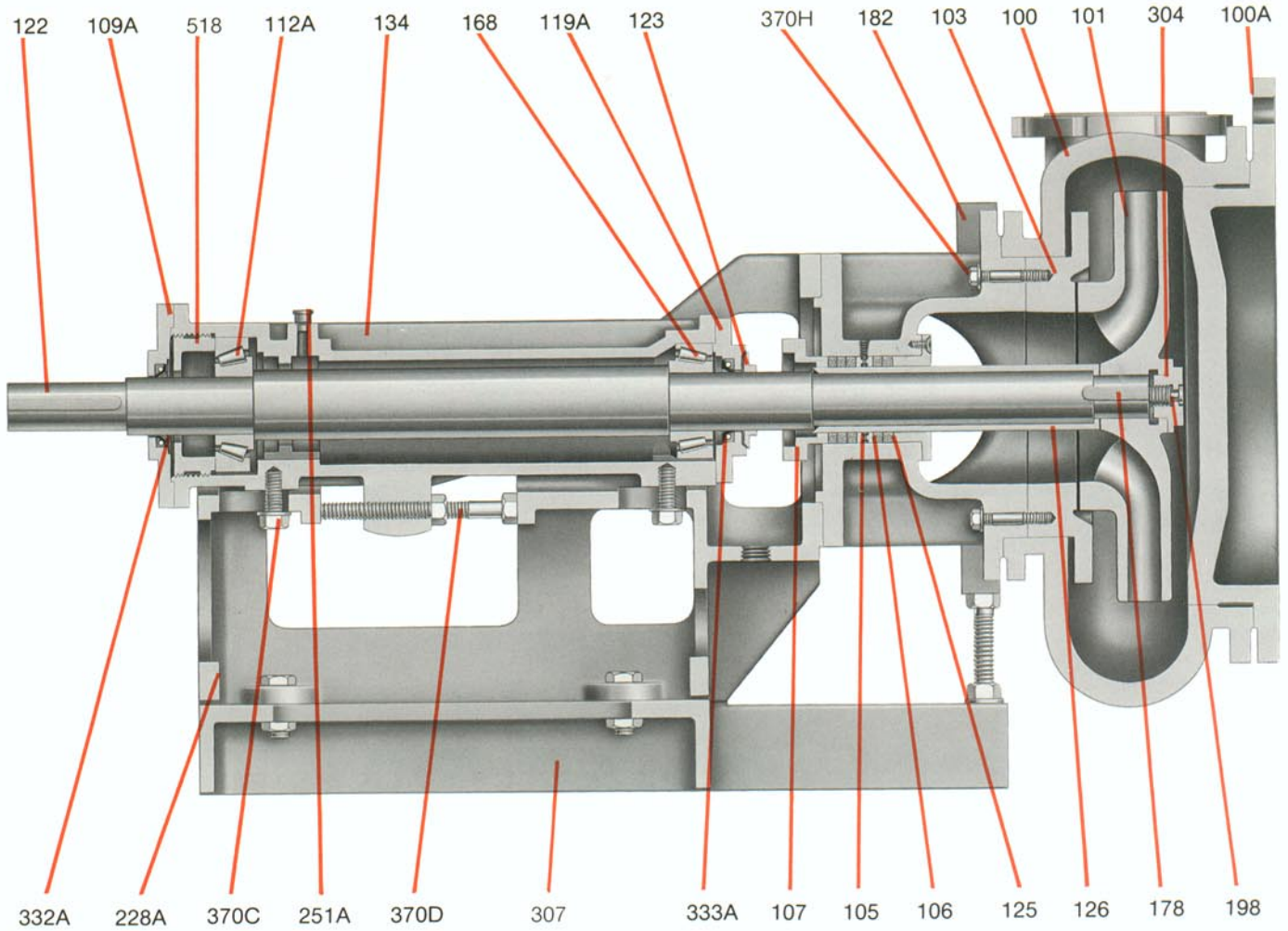
Item No.	No. Req'd. Per Pump	Part Name	Material					
			Standard		Optional*			
			Goyne Alloy	HC600	CC60	CC125	Goyne 420	Goyne 316
100	1	Casing	G.A.	HC600	CC60	CC125	420	316
100A	1	Rear Head	4250	HC600	CC60	CC125	420	316
100B	1	Suction Liner	HC600	HC600	CC60	CC125	420	316
101	1	Impeller	HC600	HC600	CC60	CC125	420	316
103	1	Casing Ring	HC600	HC600	CC60	CC125	420	316
105	1	Lantern Ring	Bronze					
106	1 Set	Stuffing Box Packing	Non-Asbestos					
107	1	Gland	Cast Iron					
109A	1	End Cover — Drive End	Cast Iron					
112A	1	Bearing — Drive End	Steel					
119A	1	End Cover — Impeller End	Cast Iron					
122	1	Shaft	Steel					
123	1	Deflector	Bronze					
125	1	Stuffing Box Bushing	CC60					
126	1	Shaft Sleeve	CC60					
134	1	Bearing Housing	Cast Iron					
168	1	Bearing — Inboard	Steel					
178	1	Impeller Key	Steel					
182	1	Suction Cover	G.A.	HC600	CC60	CC125	420	316
184	1	Stuffing Box Cover	Cast Iron					
198	1	Impeller Locking Screw	Steel	Steel	18-8	18-8	Steel	316
228A	1	Frame	Ductile Iron					
251A	1	Oil Filler Cup						
304	1	Impeller Nut	Bronze		CC60	Bronze		316
307	1	Sub-Base	Cast Iron					
332A	1	Oil Seal — Drive End	Rubber					
333A	1	Oil Seal — Impeller End	Rubber					
370H	2-4	Case Ring Stud	Steel					
370A	2-4	Liner Studs	Steel					
370C	2	Bearing Housing Locking Stud	Steel					
370D	1	Impeller Adjusting Bolt	Stainless Steel					
518	1	Bearing Adjusting Ring	Cast Iron					

*For other materials, contact factory.

Materials of Construction

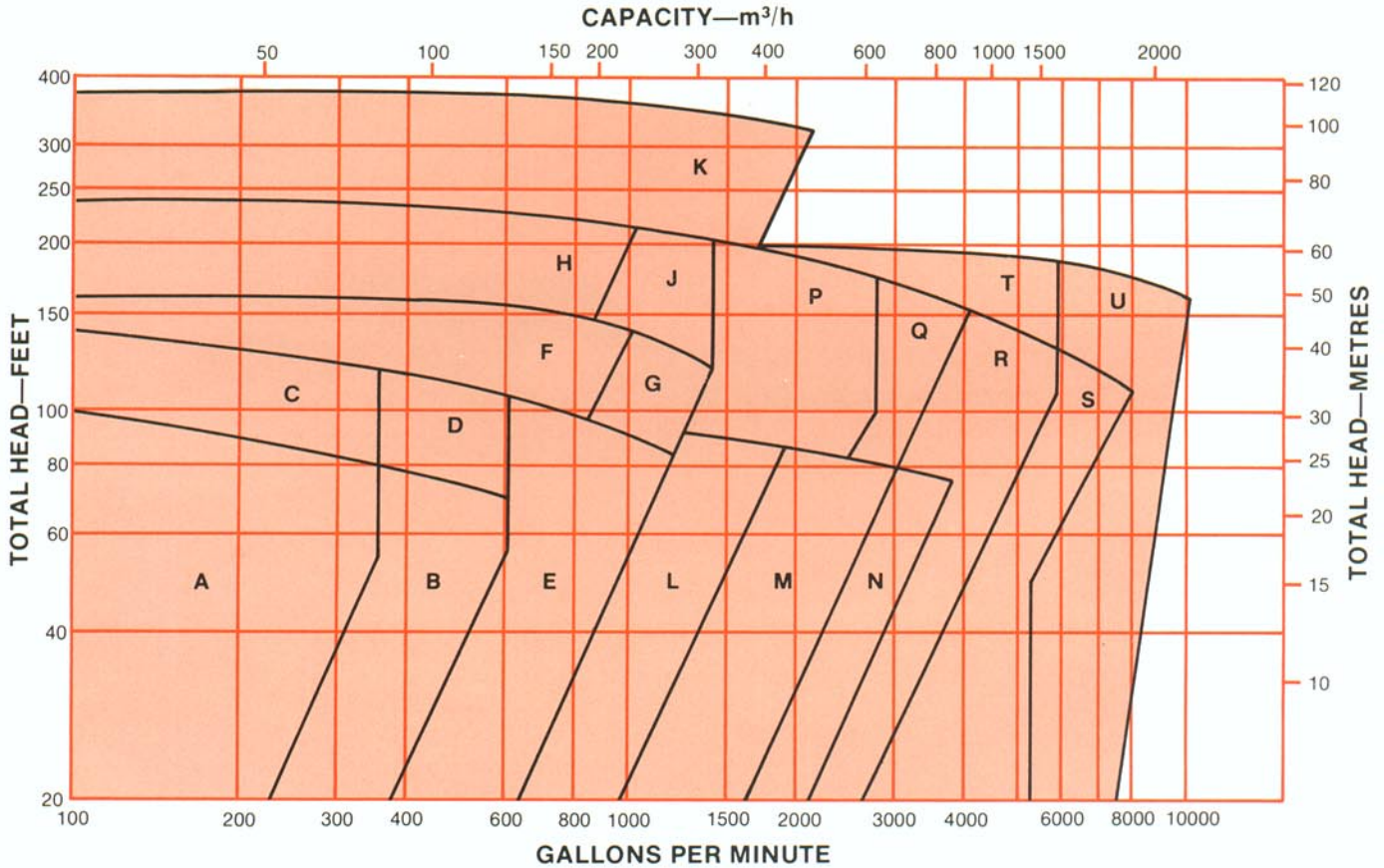
ALLOYS FOR SLURRY PUMPS						
Properties of Alloys	Goyne Alloy	CC60	CC125	HC600	Goyne 420	Goyne 316
Typical Brinell Hardness Number	300/350	180	350/400	550/600	400/450	160
Rockwell Hardness "C" Scale	32/38	8	38/43	55/62	43/48	2
Heat Treatment Required	None	Anneal	Anneal	Yes	Yes	Yes
Stress Relieving Required	None	None	None	Yes	Yes	None
Typical Tensile Strength	30,000-35,000 psi	50,000-60,000 psi	45,000-55,000 psi	55,000-75,000 psi	175,000-200,000 psi	80,000 psi
Resists Acid Slurries	Down to 6 pH	Down to 3 pH	Down to 4 pH	Down to 5 pH	Down to 5 pH	Yes
Resists Alkaline Slurries	Up to 8 pH	Up to 11 pH	Up to 11 pH	Up to 11 pH	Up to 8 pH	Yes
Resists Abrasion	Fair	Poor	Good	Excellent	Very Good	Poor

Sectional View Model 5000



Model 5050

Pump Selection Chart Models 5000 & 5050

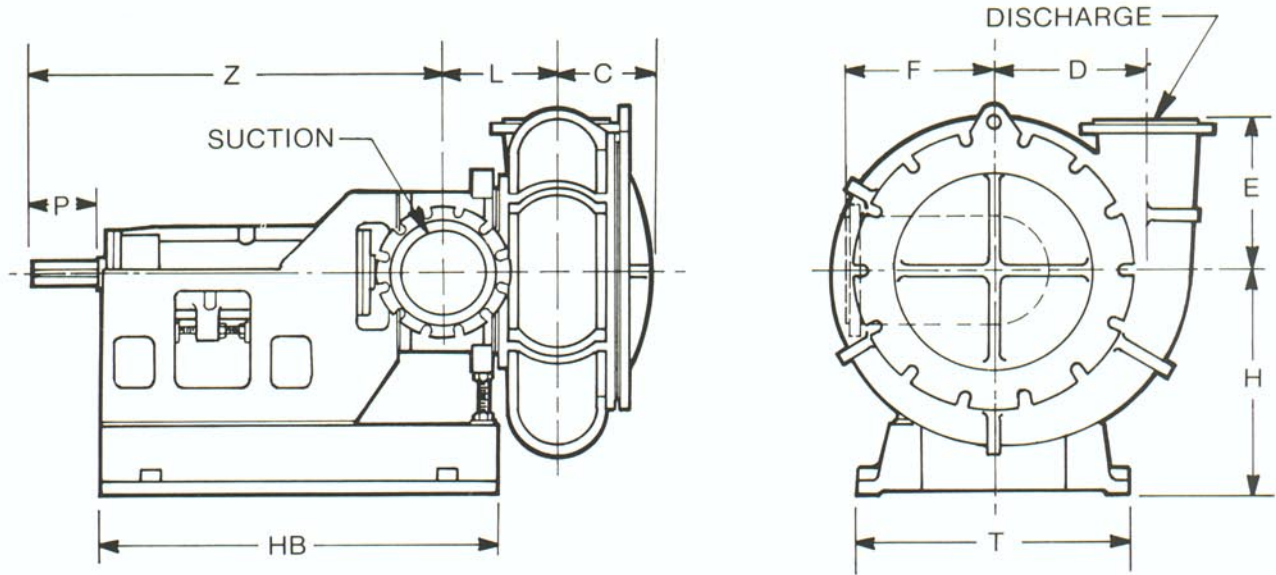


CODE FOR PUMP SELECTION CHART

Code	Model 5000	Model 5050
A	3 x 3 x 12, 3 x 4 x 12, 4 x 4 x 12, 4 x 5 x 12, 3 x 3 x 14½, 3 x 4 x 14½, 4 x 4 x 14½, 4 x 5 x 14½	3 x 3 x 12, 3 x 4 x 12, 4 x 4 x 12, 4 x 5 x 12, 3 x 4 x 13, 4 x 5 x 13, 3 x 3 x 14½, 3 x 4 x 14½, 3 x 4 x 14½, 4 x 4 x 14½, 4 x 5 x 14½
B	4 x 4 x 12, 4 x 5 x 12, 4 x 4 x 14½, 4 x 5 x 14½, 5 x 6 x 15	4 x 4 x 12, 4 x 5 x 12, 3 x 4 x 13, 4 x 5 x 13, 4 x 4 x 14½, 4 x 5 x 14½, 5 x 6 x 15
C	3 x 3 x 14½, 3 x 4 x 14½, 4 x 4 x 14½, 4 x 5 x 14½, 4 x 4 x 21½, 4 x 6 x 21½, 4 x 4 x 18	3 x 3 x 14½, 3 x 4 x 14½, 4 x 4 x 14½, 4 x 5 x 14½, 4 x 6 x 21½
D	4 x 4 x 14½, 4 x 5 x 14½, 5 x 6 x 15, 4 x 4 x 18, 4 x 6 x 18, 4 x 4 x 21½, 4 x 6 x 21½	4 x 4 x 14½, 4 x 5 x 14½, 5 x 6 x 15, 4 x 6 x 18, 4 x 6 x 21½
E	5 x 6 x 15, 6 x 6 x 17½, 6 x 8 x 17½, 4 x 4 x 18, 4 x 6 x 18, 6 x 8 x 21	5 x 6 x 15, 6 x 6 x 17½, 6 x 8 x 17½, 4 x 6 x 18, 6 x 8 x 21
F	4 x 4 x 18, 4 x 6 x 18, 6 x 8 x 21, 4 x 4 x 21½, 4 x 6 x 21½, 6 x 6 x 21½, 6 x 6 x 27¼, 6 x 8 x 27¼	4 x 6 x 18, 6 x 8 x 21, 4 x 4 x 21½, 4 x 6 x 21½, 6 x 6 x 21½
G	6 x 6 x 17½, 6 x 8 x 21, 8 x 10 x 21, 6 x 6 x 21½, 6 x 6 x 27¼, 6 x 8 x 27¼	6 x 6 x 17½, 6 x 8 x 21, 8 x 10 x 21, 6 x 6 x 21½
H	4 x 4 x 18, 4 x 4 x 21½, 4 x 6 x 21½, 6 x 6 x 27¼, 6 x 8 x 27¼	4 x 4 x 21½, 4 x 6 x 21½
J	6 x 8 x 21, 6 x 6 x 21½, 6 x 6 x 27¼, 6 x 8 x 27¼	6 x 8 x 21, 6 x 6 x 21½
K	6 x 6 x 27¼, 6 x 8 x 27¼	
L	6 x 8 x 17½, 8 x 8 x 17½, 6 x 8 x 21, 8 x 10 x 21, 10 x 10 x 26	6 x 8 x 17½, 8 x 8 x 17½, 6 x 8 x 21, 8 x 10 x 21
M	10 x 12 x 15, 8 x 8 x 17½, 8 x 10 x 17½, 6 x 8 x 21, 8 x 10 x 21, 10 x 12 x 21, 10 x 10 x 26	8 x 8 x 17½, 6 x 8 x 21, 8 x 10 x 21, 10 x 12 x 21
N	10 x 12 x 15, 8 x 10 x 17½, 10 x 12 x 21	10 x 12 x 21
P	6 x 8 x 21, 8 x 10 x 21, 10 x 12 x 21, 10 x 10 x 26, 10 x 12 x 27	6 x 8 x 21, 8 x 10 x 21, 10 x 12 x 21
Q	8 x 10 x 21, 10 x 12 x 21, 12 x 12 x 21¼, 12 x 14 x 21¼, 10 x 12 x 27, 10 x 12 x 34	8 x 10 x 21, 10 x 12 x 21, 12 x 12 x 21¼, 12 x 14 x 21¼
R	10 x 12 x 21, 12 x 12 x 21¼, 12 x 14 x 21¼, 10 x 12 x 27, 10 x 12 x 34	10 x 12 x 21, 12 x 12 x 21¼, 12 x 14 x 21¼
S	12 x 12 x 21¼, 12 x 14 x 21¼	12 x 12 x 21¼, 12 x 14 x 21¼
T	10 x 12 x 34	
U		14 x 16 x 25

Dimensions Model 5000

All dimensions in inches. Not to be used for construction.

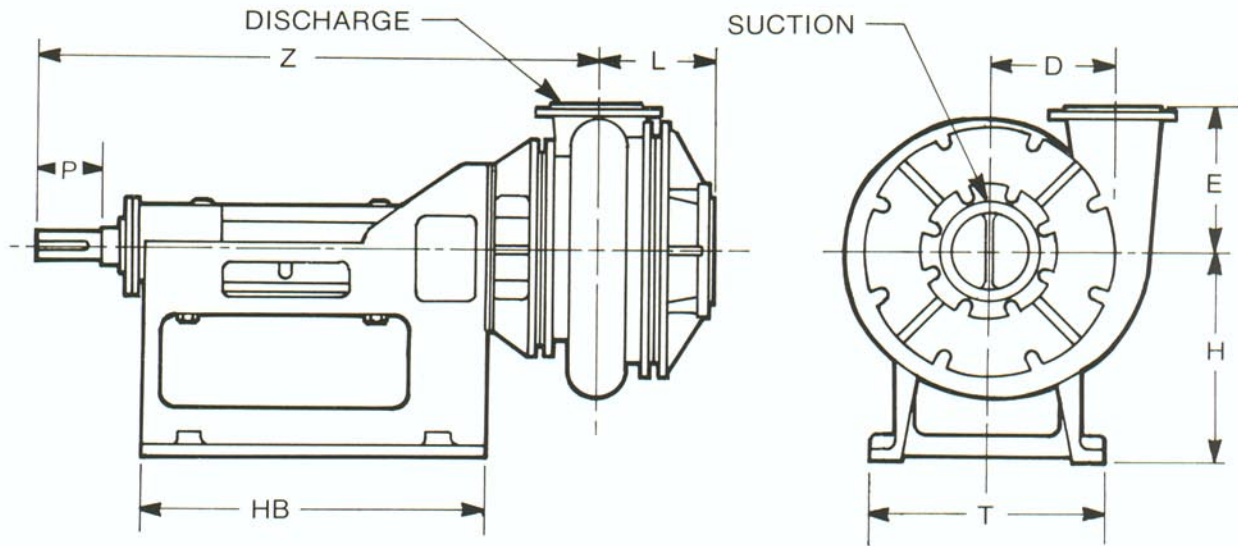


DIMENSIONS

Pump Size	C	D	E	F	H	L	P	T	HB	Z	Approx. Weight-Lbs.
3x3x12	5	7	8	8½	13¼	5⅞	4	16½	18½	24⅞	445
3x4x12	5	7	8	9	13¼	6⅞	4	16½	18½	25½	460
3x3x14½	5¼	8⅞	10	8½	13¼	6⅞	4	16½	18½	24¾	555
3x4x14½	5¼	8⅞	10	9	13¼	6⅞	5⅞	16½	18½	26⅞	570
4x4x12	5¼	7	9	9	13¼	6⅞	4	16½	18½	25¾	605
4x5x12	5¼	7	9	13	13¼	6⅞	4	16½	18½	25¾	645
4x4x14½	5¼	8⅞	10	9	13¼	6⅞	5⅞	16½	18½	26⅞	655
4x5x14½	5¼	8⅞	10	13	13¼	6⅞	5⅞	16½	18½	26⅞	695
4x4x18	7⅞	10	14½	16	20	8⅞	8	24	38½	46½	2035
4x4x18HP	8	10	17	19½	20	8½	8	32	53	47¾	3510
4x6x18	7⅞	10	14½	16	20	8⅞	8	24	38½	46½	2085
4x4x21½	8	12	15½	17½	20	8⅞	8	24	38½	47⅞	2535
4x6x21½	8	12	15½	17½	20	8⅞	8	24	38½	47⅞	2585
6x6x21½	8	12	15½	17½	20	8⅞	8	24	38½	47⅞	2635
5x6x15	6⅞	8⅞	11	14	17	8⅞	5⅞	19	28¼	39¾	1260
6x6x17½	8½	11¼	14	14	17	9¼	6¼	19	28¼	41⅞	1760
6x6x27¼	9	14¾	17½	21½	22	9⅞	11	33	43	50⅞	4255
6x6x27¼HP	10⅞	14¾	24	26	27	11½	11	33	60	49¼	
6x8x27¼	9	14¾	17½	21½	22	10⅞	11	33	43	49⅞	4355
6x8x27¼HP	10⅞	14¾	24	26	27	11½	11	33	60	49¼	
6x8x17½	8¼	11¼	14	13¾	20	11⅞	8	27	41	47¾	2435
6x8x21	8½	13¾	14½	13¾	20	11⅞	8	27	41	47¾	2750
8x8x17½	8¼	12⅞	14¼	13¾	20	11⅞	8	27	41	47¾	2750
8x10x17½	8¼	12⅞	14¼	17½	20	13	8	32	43¼	49⅞	2950
8x10x21	9¼	14¾	18	17½	27	13¾	12	33	48	53¾	3925
10x12x15½	8½	10½	17	17½	20	14	8	32	43¼	48¾	2915
10x10x26 Std. Brg.	8	16	16	17½	27	12⅞	12	33	48	54⅞	4925
10x12x21	9¾	14¾	18	19	27	15⅞	12	36	48	53¾	4360
10x12x27	9¾	18¾	18	19	27	15⅞	12	36	48	53⅞	5375
12x12x21¾	11¾	14¾	18	19	27	16⅞	12	36	48	53½	5125
12x14x21¾	11¾	14¾	18	22½	27	18⅞	12	36	48	52¼	5425
10x12x34	13⅞	20½	21½	19	34¼	15⅞	12	32	70	53⅞	5900

Dimensions Model 5050

All dimensions in inches. Not to be used for construction.



DIMENSIONS

Pump Size	D	E	H	HB	L	P	T	Z	Approx. Weight-Lbs.
3x3x12	7	8	13 ¹ / ₄	18 ¹ / ₂	6 ¹⁵ / ₁₆	4 ¹ / ₂	16 ¹ / ₂	31 ¹ / ₄	650
3x4x12	7	8	13 ¹ / ₄	18 ¹ / ₂	6 ¹⁵ / ₁₆	4 ¹ / ₂	16 ¹ / ₂	31 ¹ / ₄	600
3x4x14 ¹ / ₂	8 ¹ / ₈	10	13 ¹ / ₄	18 ¹ / ₂	7 ¹ / ₂	4 ¹ / ₂	16 ¹ / ₂	31 ¹¹ / ₁₆	725
4x4x12	7	9	13 ¹ / ₄	18 ¹ / ₂	7 ¹³ / ₁₆	4 ¹ / ₂	16 ¹ / ₂	31 ¹³ / ₁₆	700
4x5x12	7	9	13 ¹ / ₄	18 ¹ / ₂	7 ¹³ / ₁₆	4 ¹ / ₂	16 ¹ / ₂	31 ¹³ / ₁₆	710
4x4x14 ¹ / ₂	8 ¹ / ₈	10	13 ¹ / ₄	18 ¹ / ₂	7 ¹ / ₂	4 ¹ / ₂	16 ¹ / ₂	31 ¹¹ / ₁₆	720
4x5x14 ¹ / ₂	8 ¹ / ₈	10	13 ¹ / ₄	18 ¹ / ₂	7 ¹ / ₂	4 ¹ / ₂	16 ¹ / ₂	31 ¹¹ / ₁₆	730
4x6x18	10	14 ¹ / ₂	20	38 ¹ / ₂	9 ¹ / ₂	8	24	53 ³ / ₈	2200
4x6x21 ¹ / ₂	12	15 ¹ / ₂	20	38 ¹ / ₂	9 ¹ / ₂	8	24	53 ³ / ₈	2450
6x6x21 ¹ / ₂	12	15 ¹ / ₂	20	38 ¹ / ₂	9 ¹ / ₂	8	24	53 ³ / ₈	2500
5x6x15	8 ¹⁵ / ₁₆	11	17	28 ¹ / ₄	9 ¹ / ₄	6	19	48 ¹ / ₄	1400
6x6x17 ¹ / ₂	11 ¹ / ₄	14	17	28 ¹ / ₄	11	6	19	48 ¹³ / ₁₆	1650
6x8x17 ¹ / ₂	11 ¹ / ₄	14	20	38 ¹ / ₂	11 ¹ / ₂	8	24	56	2250
6x8x21	13 ⁵ / ₈	14 ¹ / ₂	20	38 ¹ / ₂	11 ¹ / ₄	8	24	56	2450
8x8x17 ¹ / ₂	12 ⁵ / ₁₆	14 ¹ / ₄	20	38 ¹ / ₂	11 ³ / ₄	8	24	56	2360
8x10x21	14 ³ / ₄	18	30	64	12	11 ¹ / ₂	36	61 ⁹ / ₁₆	3850
10x12x21	14 ³ / ₄	18	30	64	12 ¹ / ₂	12	36	62 ¹ / ₂	4400
12x14x21 ³ / ₄	14 ³ / ₄	18	30	64	14 ¹ / ₄	12	36	64 ³ / ₈	5200
14x16x25	18 ¹ / ₂	20	32	60	15	12	36	60 ³ / ₄	6175

GOULDS PUMPS
ITT Industries